

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
Attorney Docket No. 5486-0218PUS1**

In re U.S. Patent Application Dunietz, et al.	)	
	)	
Application No. 09/552,262	)	
	)	Group Art Unit: 2176
Filed: April 19, 2000	)	
	)	Examiner: William L. Bashore
	)	
For: Pre-Computing and Encoding	)	Confirmation No. 4106
Techniques for an Electronic	)	
Document to Improve Run-Time	)	
Processing	)	

**APPEAL BRIEF**

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This is an Appeal Brief in accordance with 37 CFR §41.37, filed in support of Applicant's December 17, 2007 Notice of Appeal. Appeal is taken from the Final Office Action mailed June 18, 2007. Please charge any necessary fees in connection with this Appeal Brief to our Deposit Account No. 02-2448.

**I. Real Parties in Interest**

The owner of this application and real party in interest is Microsoft Corporation.

## **II. Related Appeals and Interferences**

There are no related appeals and interferences.

### **III. Status of the Claims**

Claims 1-35 are finally rejected. No claim is allowed. Claims 1-35 are pending and are being appealed herein. All of the pending claims, claims 1-35 are shown in the attached appendix. Claims 1, 10, 12, 14, 16, 19, 24 and 32 are independent claims.

#### **IV. Status of Amendments**

There are no amendments subsequent to the Final Office Action of June 18, 2007, and all prior amendments have been entered.

## V. Summary of the Claimed Subject Matter

In making reference herein to various portions of the specification and drawings in order to explain the claimed invention, Applicants do not intend to limit the claims; all references to the specification and drawings are illustrative unless otherwise explicitly stated.

Aspects of the invention are directed to a process that converts an e-book from a general format, such as Open eBook, to a simplified file format hierarchy. (Pg. 5, Ln. 2-4). Typically, the general format includes tags that are commands written between "<" and ">" symbols, where the commands affect how the content is displayed and the tags can be heavily intermixed with the content. (Pg. 2, Ln. 25 - Pg. 3, Ln. 4). During the process, the conversion pre-computes and encodes the e-book to accelerate run-time search operations and to minimize computation requirements for run-time parsing and other forms of processing. (Pg. 5, Ln. 4-7). In an embodiment, the content and tags are separated and the tags are replaced with pre-defined integer representations. (Pg. 5, Ln. 17-19). Flags may be inserted into the tags to identify start and end tags, word breaks and area of content that should be skipped during a run-time search. (Pg. 5, Ln. 19 - Pg. 6, Ln. 2). For example, content associated with a tag containing the flag "NOSEARCH" indicates that content is hidden and need not be searched at run time. (Pg. 22, Ln. 3-6).

The converted e-book may be a single file within a nest hierarchy of files, where the nested files can be multiple directories and files. (Pg. 13, Ln. 1-15). Thus, the converted e-book has a root directory and linked metadata files as well as a linked content subdirectory within the root directory. (Pg. 13, Ln. 19-25). The root directory may include a linked manifest file that provides a list of all the files in the e-book so that the list does not need to be derived from the metadata. (Pg. 15, Ln. 21-22).

During encoding, a code character is inserted to separate markup language from the actual content, where the code character may be UNICODE character 0x0000. (Pg. 16, Ln. 1-3). The code character is inserted before and after each start and end tag. (Pg. 16, Ln. 3-4). Flags such as "NOSEARCH" and "WORDBREAK" may be inserted in between the boundary code characters to help identify the content associated with the tag. (Pg. 19, Ln. 19-22).

For example, the tag, which could be the tag "<td nowrap>" becomes the structure:

- (1) 0x000
- (2) Flags = STARTTAG WORDBREAK = 0x000C
- (3) Tag code = TAGID\_TD = 95 = 0x5f
- (4) Attribute code=DISPID\_IHTMLTABLECELL\_NOWRAP = 0x8001138D

- (5) Attribute value = Boolean TRUE
- (6) 0x000

(Pg. 23, Ln. 5-21). The sequence may then be encoded into Unicode characters, converted into UTF-8 format and compressed so as to minimize computational requirements during run time. (Pg. 24, Ln. 19 - Pg. 26, Ln. 5).

Turing to the claims, independent claim 1 is directed to encoding an electronic document having markup language content, wherein the document includes at least one tag and an associated content (Pg. 5, Ln. 17). The method comprises separating the tag from the content with a separation variable (Pg. 5, Ln. 17; Pg. 17, Ln. 1-7); replacing the tag with an alias (Pg. 5, Ln. 18-19), wherein the alias is a pre-defined representation for the tag (Pg. 17, Ln. 15); and inserting at least one flag (Pg. 5, Ln. 19) within the tag to form an encode tag structure (Pg. 5, Ln. 20); wherein a first encoded document is formed.

Dependent claim 2 includes the step of replacing at least one attribute type within the tag with an attribute alias (Pg. 5, Ln. 18-19; Pg. 17, Ln. 8), wherein the attribute alias is a predefined representation for the attribute type (Pg. 5, Ln. 18-19).

Dependent claim 3 further includes UTF-8 encoding the first encoded document to form a second encoded document (Pg. 5, Ln. 20).

Dependent claim 4 includes the step of compressing the second encoded document to form a compressed document (Pg. 5, Ln. 21-22; Pg. 20, Ln. 24).

Dependent claim 5 includes inserting a position flag to indicate whether the tag is a start tag or an end tag (Pg. 21, Ln. 3-7).

Dependent claim 6 includes inserting a word break flag between a left and right term of the associated content (Pg. 21, Ln. 16-23), whereby a word break may be readily identified during a run-time search operation.

Dependent claim 7 recites inserting a no search flag in association with a portion of the content information (Pg. 22, Ln. 4-5), whereby a no search field may be readily identified and skipped during a run-time linear search (Pg. 22, Ln. 5-6).

Dependent claim 8 further includes replacing a URL within the content information with a reference string, whereby the file referenced by the URL may be readily accessed when selected during run-time (Pg. 22, Ln. 7-20).

Dependent claim 9 includes a computer-readable medium having computer-executable

instructions for performing the steps recited in claim 1 (Pg. 10, Ln. 6-21).

Independent claim 10 is directed to a method for pre-computing an electronic document having markup language content. The method includes identifying a tag between a left and a right term within a document (Pg. 21, Ln. 3-4); determining whether the tag is within a single word (Pg. 21, Ln. 8); and if the left and right terms are not part of a single word, inserting a word break flag between the left and right term (Pg. 21, n. 17-21), whereby a word break may be readily identified during a run-time search operation.

Dependent claim 11 comprises a computer-readable medium having computer-executable instructions for performing the steps recited in claim 10 (Pg. 10, Ln. 6-21).

Independent claim 12 is directed to a method for pre-computing an electronic document having markup language content. The method includes identifying a tag within a document associated with a portion of content; determining whether the portion is to be displayed for viewing by a reading device (Pg. 21, Ln. 24- Pg. 26, Ln. 1); if the portion is not to be displayed for viewing, inserting a no search flag in association with the portion (Pg. 26, Ln. 3-5); whereby a no search field may be readily identified and skipped during a run-time linear search.

Dependent claim 13 comprises a computer-readable medium having computer-executable instructions for performing the steps recited in claim 12 (Pg. 10, Ln. 6-21).

Independent claim 14 is directed to a method for pre-computing an electronic document having markup language content. The method includes identifying a Uniform Resource Locator (URL) within a document (Pg. 22, Ln. 1-2); searching a manifest file for a file referenced by the URL (Pg. 22, Ln. 11-14); if the file is identified in the manifest file with a reference string, replacing part of the URL with the reference string and a flag for the file (Pg. 22, Ln. 12-15); whereby the file referenced by the URL may be readily accessed when selected during run-time.

Dependent claim comprises a computer-readable medium having computer-executable instructions for performing the steps recited in claim 14 (Pg. 10, Ln. 6-21).

Independent claim 16 is directed to a method for encoding an electronic document. The method includes inserting at least one code character into the electronic document to separate markup language from content (Pg. 5, Ln. 17); locating a tag within the electronic document associated with a portion of content (Pg. 5, Ln. 19-20); identifying a pre-defined integer alias for the tag (Pg. 5, Ln. 18); replacing the tag with the alias (Pg. 5, Ln. 18-19); whereby the tag may be readily identified during run-time parsing of the document.

Dependent claim 17 recites that the encoding of claim 16 includes locating an attribute type



within the tag (Pg. 17, Ln. 9); identifying a pre-defined attribute alias for the attribute type (Pg. 17, Ln. 15-16); and replacing the attribute type with the attribute alias (Pg. 18, Ln., 5-6).

Dependent claim 18 comprises a computer readable medium having computer-executable instructions for performing the steps recited in claim 16 (Pg. 10, Ln. 6-21).

Independent claim 19 is directed to a computer-readable medium having stored thereon a markup language document which includes at least one tag having encoded therein a predefined integer alias for the tag (Pg. 5, Ln. 18); an content portion associated with the tag (Pg. 5, Ln. 17); a code separating the tag from the content portion (Pg. 5, Ln. 17); and whereby the content and markup within the document may be readily parsed at run-time (Pg. 5, Ln. 22-23).

Dependent claim 20 recites that the tag includes at least one flag wherein the flag is selected from the group consisting of WORDBREAK, NOSEARCH, STARTTAG, and ENDTAG (Pg. 19, Ln. 19-23).

Dependent claim 21 recites wherein the tag further includes at least one pre-defined attribute type alias (Pg. 17, Ln. 15-16).

Dependent claim 22 recites the feature of the markup language document being encoded with UTF-8 (Pg. 20, Ln. 6-7).

Dependent claim 23 recited the feature of the markup language document being compressed (Pg. 5, Ln. 21-22; Pg. 20, Ln. 24).

Independent claim 24 is directed to a computer-readable medium having stored thereon an electronic book (Pg. 10, Ln. 6-21). The electronic book includes a file format hierarchy that comprises a root directory (Pg. 5, Ln. 7-8); a content subdirectory linked to the root directory (Pg. 5, Ln. 9), the content subdirectory having nested therein at least one linked content file providing content information relating to the electronic book (Pg. 5, Ln. 9-10), wherein the content file is pre-computed and encoded to minimize computational run-time requirements (Pg. 5, Ln. 15-16).

Dependent claim 25 is directed to the method of claim 24 that further includes at least one link destination index file linked to the content file (Pg. 10, Ln. 12-14).

Dependent claim 26 is directed to the method of claim 24 that further includes a page break index providing an index of page break corresponding to the electronic book (Pg. 5, Ln. 9).

Dependent claim 27 is directed to the method of claim 24 that further includes a metadata file linked to the root directory and having information about the electronic book (Pg. 10, Ln. 12-14).

Dependent claim 28 is directed to the method of claim 24 that further includes a manifest

file linked to the root directory providing a listing of the files in the content subdirectory relating to the electronic book (Pg. 15, Ln. 21-22).

Dependent claim 29 recites that the content database further includes at least one Cascading Style Sheets (CSS) file (Pg. 15, Ln. 3-4).

Dependent claim 30 is directed to the method of claim 24 that further includes a metadata file linked to the root directory and having information about the electronic book (Pg. 13, Ln. 24 to Pg. 14, Ln. 1).

Dependent claim 31 is directed to the method of claim 24 that further includes a digital rights management database linked to the root database (Pg. 15, Ln. 23-25).

Independent claim 32 is directed to a method of converting an electronic document comprising markup language. The method includes receiving the document having a first format; processing the document to encode and pre-compute the markup language within the document (Pg. 5, Ln. 4-7; Pg. 26, Ln. 2-5); forming a converted document, wherein the converted document has a file format hierarchy that includes a root directory (Pg. 5, Ln. 7-8); and a content subdirectory linked to the root directory (Pg. 5, Ln. 9), the content subdirectory having nested therein at least one linked content file providing content information relating to the converted document (Pg. 5, Ln. 9-10).

Dependent claim 33 recites that the first format is an Open E-Book format (Pg. 5, Ln. 4-5).

Dependent claim 34 recites that document is an electronic book (Pg. 12, Ln. 15-25).

Dependent claim 35 includes a computer-readable medium having computer-executable instructions for performing the steps recited in claim 32 (Pg. 10, Ln. 6-21).

## **VI. Grounds of Rejection to be Reviewed on Appeal**

Claims 1-2, 5, 7, 9, and 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada et al. (hereinafter "Tada"), U.S. Patent No. 5,745,745 patented 4/28/1998.

Claims 3-4, 8, and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada in view of "Open eBook Publication Structure 1.0" (hereinafter "Open eBook") published 9/16/99.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada in view of Carus, et al., (hereinafter "Carus") U.S. Patent No. 6,035,268.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada in view of Carus.

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tada.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Open eBook.

Claims 24-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Open eBook in view of Tada.

The rejections of claims 1-35 are being appealed.

## VII. Argument

The current final rejection, dated June 16, 2007, has attempted to offer Tada as a single reference under 35 U.S.C. § 103(a) to independent claims 1, 12, 16, 19 and has chosen to use it in combination with a second reference over independent claims 10, 24 and 32. The only independent claim not either singularly addressed in the current final rejection, or as relying at least in part on the Tada reference is independent claim 14 and a dependent claim there from, claim 15.

Insofar as claims 14 and 15 are not rejected being by Tada, the record appears to be at least inferentially based upon the alleged disclosure in Tada and the applicability of Tada to claims 14 and 15.

Applicants respectfully disagree with the current attempt to reject essentially all the pending claims, either directly or indirectly over Tada.

1. **Previous Position Taken In Prosecution Record By The Board Of Patent Appeals and Interferences Is Contrary To Current Position Taken By The Examiner.**
2. **The Length of the Prosecution Record Is Contrary To USPTO's Compact Prosecution Mission, And Fails To Demonstrate The Shared Responsibility Of Applicants And The USPTO With The Quality Of The Patent Examination Process.**<sup>1</sup>
3. **The Position Taken By the Current Examiner Appears To Be Merely Conclusory, And Fails To Provide Applicants With A Substantive Basis To Raise A More Comprehensive Answer.**

1. **Previous Position Taken In Prosecution Record Is Contrary To Current Position Taken By The Examiner.**

The USPTO (hereinafter "the Office") already took a clear position that Tada lacked the requisite teaching. (See, final rejection December 23, 2005 and Supplemental Appeal Brief dated October 10, 2006, and as further supported by the disposition by the Board of Patent Appeals and

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<sup>1</sup> USPTO 2007-2012 Strategic Plan, Web Site Posting Date: Sept. 20, 2007, <http://www.uspto.gov/web/offices/com/strat2007/>.

Interferences [hereinafter "BPAI"]).

(a) Clearly the record supports that it is well settled that the previous Examiner, and that previous Examiner's supervisor, and the BPAI are in clear agreement with the Applicants that Tada is not a sufficient basis to render the claimed invention obvious.

2. The Length of the Prosecution Record Is Contrary To USPTO's Compact Prosecution Mission, And Fails To Demonstrate The Shared Responsibility Of Applicants And The USPTO With The Quality Of The Patent Examination Process.<sup>2</sup>

The record is lengthy and well-developed and as evidenced by the two previous Appeals filed to advance the prosecution against the lengthy and well-developed line, for example, the first Appeal filed April 15, 2005 and the second Appeal filed June 16, 2006 further supported by the individual four Non-Final Office Actions and three Final Office Actions all support the direct conclusion that Tada is not sufficient to render the claimed invention obvious.

Insofar as the basis for proposing a single-reference § 103 rejection has not been foreclosed by the lengthy prosecution record, and the positions taken by the previous Examiner and his supervisor, the BPAI and/or the Applicants; Applicants ask for a final determination, including but not limited to a full reversal of the present basis for rejection.

For sake of completeness, Applicants have responded to the rejections made or maintained in the present final rejection as set forth below, but in doing so Applicants do not acquiesce to their substantive basis in view of the lengthy and well-developed prosecution record for the instant application.

3. The Position Taken By the Current Examiner Appears To Be Merely Conclusory, And Fails To Provide Applicants With A Substantive Basis To Raise A More Comprehensive Answer.

The Examiner takes a merely conclusory basis for the application of Tada as a single reference rejection under 35 U.S.C. § 103(a) over claims 1-2, 5, 7, 9, and 16-21, and insofar as Tada is relied upon in combination under 35 U.S.C. § 103(a) over claims 3, 4, 8, 22, and 23; and 6, 10-13; and 24-32. By the Examiner merely stating that a "reasonable suggestion" exists in the application of Tada to the instant claims, Applicants are not able to gauge the explicit definition of

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<sup>2</sup> *Id.*

his "standard". Accordingly Applicants respectfully preserve the right to present additional arguments at such time in the future, if, and when deemed necessary to respond to more substantive arguments.

**A. Claims 1-2, 5, 7, 9, and 16-21 are patentably distinguishable over Tada.**

Claims 1, 16, and 19 are independent claims and stand rejected under 35 U.S.C. § 103(a) over Tada. Claims 2, 5, 7, and 9 depend directly from independent claim 1. Claims 17-18 depend directly from independent claim 16, whereas, claims 20-21 depend directly from independent claim 19. As the prosecution records clearly supports -- Tada fails to disclose or suggest at least one claimed feature of all the rejected claims. Therefore, Tada fails to support *a prima facie* case of obviousness for claims 1-2,5,7,9, and 16-21.

1. Independent claim 1 is patentable because Tada fails to disclose or suggest the claimed feature "separating the tag from the content with a separation variable" recited in claim 1.

Tada discloses a text search method for structured documents. The December 23, 2005 Final Office Action (hereinafter the Prior Final Office Action) states and Applicants agree that "... Tada does not teach combining the alias and the flag and separating the combination from the content with a separation variable." (Emphasis Added; Prior Final Office Action, Page 3.)

Support for Applicants claimed separation variable may be found on at least page 17 of Applicants specification:

At step 410, a code character is inserted to separate markup language from the actual content of the e-book file. For example, the code may be a Unicode character 0x0000. The Unicode character is inserted before and after each start and end tag. Subsequent encoding of the markup (discusses herein) should be constrained so that the Unicode character 0x0000 never occurs within the representation of a start or end-tag or elsewhere within the content, but rather occurs only as a first and last character of each start and end tag.

As shown in the above cited portion of Applicants specification, the separation variable may be a code character such as Unicode character 0x0000. In addition, the separation variable is inserted before and after each start and end tag. As illustrated in above cited portion of the specification, the start and end tags are distinct entities from the claimed separation variable as the separation variable separates the tags from the content. As Tada fails to disclose the claimed feature of "separating the tag from the content with a separation variable," independent claim 1 is

patentable over Tada for at least this reason.

2. Independent claim 1 is patentable because Tada fails to disclose or suggest the claimed feature of "replacing the tag with an alias, wherein the alias is a pre-defined representation for the tag" of independent claim 1.

In addition, claim 1 is allowable over Tada for at least an additional reason. Tada fails to teach at least the claimed element of "replacing the tag with an alias, wherein the alias is a pre-defined representation for the tag" as recited in step (b) of claim 1. The June 18, 2007 Final Office Action (hereinafter the Current Final Office Action) relies on Tada, contending that "Tada teaches replacing the tag with an alias in col. 22 lines 6-20." Current Final Office Action, page 2. Col. 22 lines 13-28 of Tada states:

A logical structure identification number corresponding to the logical structure discriminator is obtained from the correspondence table . . . . Specifically, in the example . . . the start tag '<Title>' is detected, . . . and the logical structure identification number '1' is obtained . . . .

... At the search database creation step 35, in place of the start tag, a specific control code "α" representative of the start of the logical structure is written and the obtained logical structure identification number and logical structure length are written after the control code "α". The end tag is deleted, and the control codes such as text ID and eot are written for the creation of the search database.

At no point in the above description does Tada describe "replacing the tag with an alias, wherein the alias is a pre-defined representation for the tag" as recited in the claim. Rather, this portion of Tada merely describes obtaining an identification number, the identification number replacing logical structure discriminator (such as "a character string after the start character "<" and before the end character ">"). Col. 22, lines 10-11. Applicants respectfully submit that identification number in Tada is replacing content such as "a character string" and is not replacing a tag with an alias, the alias being a pre-defined representation for the tag.

Moreover, as stated above in Tada, a start tag is replaced by a control code "α." Applicants contend that the control code "α" is representative of a start of a logical structure and does not disclose an alias (ex. pre-defined integer) as claimed. Therefore, Applicants respectfully submit that replacing a start tag with control code does not disclose, teach, or suggest, the claimed feature of "replacing the tag, with an alias, wherein the alias is a pre-defined representation for the tag." As Tada fails to teach this claimed feature, Applicants submit that for at least this additional reason independent claim 1 is patentable over the combination.

3. Independent claim 1 is patentable because Tada fails to disclose or suggest the

claimed feature "inserting at least one flag within the tag to form an encode tag structure" recited in claim 1.

Furthermore, claim 1 is allowable over Tada for at least an additional reason. Tada fails to teach or suggest "inserting at least one flag within the tag to form an encode tag structure" as recited in step (c) of claim 1. The Current Final Office Action relies on Tada, contending that "Tada teaches in col. 22 line 24 - col. 23 line 24 inserting a control code, which is a flag, to form an encoded structure indicating whether the information contained within the tags should be searched or not." Current Final Office Action, pages 2-3. Col. 22 lines 24-29 states:

[I]n place of the start tag, a specific control code "α" representative of the start of the logical structure is written and the obtained logical structure identification number and logical structure length are written after the control code "α". The end tag is deleted, and the control codes such as text ID and eot are written for the creation of the search database.

More explicitly, col. 22 lines 36-37 state "the start tag is replaced by the control code α . . ." Therefore, Tada teaches replacing the tag with the control code. If the control code is a flag as the Final Office Action claims, then Tada does not teach or suggest "inserting at least one flag within the tag to form an encode tag structure" as recited in the claim. Rather, this portion of Tada would teach replacing the tag with the flag. Therefore for at least this additional reason, Applicants respectfully submit that claim 1 is in condition for allowance.

4. Independent claim 1 is patentable because the rationale in the Previous Final Office Action for applying Tada does not set forth a convincing line of reasoning as to why a person of ordinary skill in the art would be motivated to modify the system disclosed in Tada by Fontaine as proposed in the Previous Final Office Action.

The Previous Final Office Action on page 3 states:

"Although Tada does not forcefully teach (specifically recite) *"inserting at least one flag within the tag. . ."*, nevertheless, Tada teaches a relation maintained between tags (aliases), flags (control codes/variables) along with logical structure identification number (see also Tada at least Figures 11, 12, 15, 28), providing reasonable suggestion to the skilled artisan of insertions, so as to facilitate correct references within the encoded structure." The argument offered, is inconsistent with the record as previously determined by the previous Examiner, his supervisor and the BPAI in agreement with the Applicant. Accordingly Applicants respectfully disagree. While the goal of Tada may be similar to the invention of claim 1, it fails to teach or



suggest that invention.

Applicants respectfully submit that the offered reasonable suggestion stretches the teaching of Tada, and cannot be found in Tada or in the knowledge of one of ordinary skill in the art at the time of the invention. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit. The Court quoting *In re Kahn*, 441 F3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]jections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. \_\_\_, 82 USPQ2d at 1385, 127 S. Ct. 1727 (2007).

Applicants respectfully submit that the Examiner is using the present application as a blueprint when the only suggestion can be found in the present application. Tada concerns a search method for searching structured documents in a massive structured document database. Therefore, for at least the reasons describe above, Applicants respectfully submit that claim 1 is in condition for allowance.

5. Independent claim 16 is patentable because Tada fails to disclose or suggest the claimed feature "inserting at least one code character into the electronic document to separate markup language from content" as recited in claim 16.

Applicants submit that claim 16 is allowable over the cited art for at least the following reasons. Tada fails to disclose, teach, or suggest at least the claimed element of "inserting at least one code character into the electronic document to separate markup language from content" as recited in step (a) of claim 16. The Current Final Office Action relies on Tada.

"Although Tada does not forcefully teach (specifically recite) *"inserting at least one flag within the tag. . ."*, nevertheless, Tada teaches a relation maintained between tags (alias), flags (control codes/variables) along with logical structure identification number (see also Tada at least Figures 11, 12, 15, 28), providing reasonable suggestion to the skilled artisan of insertions, so as to facilitate correct references within the encoded structure." The argument offered, is inconsistent with the record as previously determined by the previous Examiner, his supervisor and the BPAI in agreement with the Applicant. Accordingly Applicants respectfully disagree. While the goal of Tada may be similar to the invention of claim 1, it fails to teach or suggest that invention.

Applicants respectfully submit that the offered reasonable suggestion stretches the teaching of Tada, and cannot be found in Tada or in the knowledge of one of ordinary skill in the art at the time of the invention. The Supreme Court in *KSR* noted that the analysis supporting a rejection

under 35 U.S.C. § 103(a) should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. \_\_\_, 82 USPQ2d at 1385, 127 S. Ct. 1727 (2007).

Applicants respectfully submit that the Examiner is using the present application as a blueprint when the only suggestion can be found in the present application. Tada concerns a search method for searching structured documents in a massive structured document database. Therefore, for at least the reasons describe above, Applicants respectfully submit that claim 16 is in condition for allowance.

Therefore for at least this reason, Applicants submit that claim 16 is patentable over the Tada.

6. Independent claim 16 is patentable because Tada fails to disclose or suggest the claimed feature "replacing the tag with an alias, whereby the tag may be readily identified during run-time parsing of the document" as recited in claim 16.

Tada fails to teach at least the claimed element of "replacing the tag with an alias, whereby the tag may be readily identified during run-time parsing of the document" as recited in step (d) of claim 16. The Office Action relies on Tada, contending that "Tada teaches replacing the tag with an alias whereby the tag may be readily identified during run-time parsing of the document in col. 22 lines 6-20."

As discussed with respect to claim 1, at no point in these lines does Tada describe "replacing the tag with the alias" as recited in the claim. Rather, this portion of Tada merely describes obtaining an identification number, the identification number replacing logical structure discriminator (such as "a character string after the start character "<" and before the end character ">"). Col. 22, lines 10-11. Applicants respectfully submit that identification number in Tada is replacing content such as "a character string" and is not replacing a tag with the alias." Moreover, as stated above in Tada, a start tag is replaced by a control code "α". Applicants respectfully submit that replacing a start tag with control code does not disclose, teach, or suggest, the claimed feature of "replacing the tag with the alias." Therefore, for at least this additional reason, Applicants submits that independent claim 16 is patentable over Tada.

7. Independent claim 19 is patentable because Tada fails to disclose or suggest the claimed feature "at least one tag having encoded therein a predefined integer alias for the tag" recited in independent claim 19.

"Although Tada does not forcefully teach (specifically recite) *"inserting at least one flag within the tag. . ."*, nevertheless, Tada teaches a relation maintained between tags (alias), flags (control codes/variables) along with logical structure identification number (see also Tada at least Figures 11, 12, 15, 28), providing reasonable suggestion to the skilled artisan of insertions, so as to facilitate correct references within the encoded structure." The argument offered, is inconsistent with the record as previously determined by the previous Examiner, his supervisor and the BPAI in agreement with the Applicant. Accordingly Applicants respectfully disagree. While the goal of Tada may be similar to the invention of claim 1, it fails to teach or suggest that invention.

Claim 19 also stands rejected under Tada. The Current Final Office Action alleges that "Tada teaches a tag having encoded therein a predefined integer alias for the tag in col. 1 lines 7-13, col. 21 lines 50-64, and col. 22 lines 6-20" as recited in step (a) of claim 19. Current Final Office Action, page 5. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the offered reasonable suggestion stretches the teaching of Tada, and cannot be found in Tada or in the knowledge of one of ordinary skill in the art at the time of the invention. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit. The Court quoting *In re Kahn*, 441 F3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]jections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." *KSR v. Teleflex*, 550 U.S. \_\_\_, 82 USPQ2d at 1385, 127 S. Ct. 1727 (2007).

Applicants respectfully submit that the Examiner is using the present application as a blueprint when the only suggestion can be found in the present application. Tada concerns a search method for searching structured documents in a massive structured document database. Therefore, for at least the reasons describe above, Applicants respectfully submit that claim 19 is in condition for allowance.

The cited portion of Tada does not describe "at least one tag having encoded therein a predefined integer alias for the tag." Rather, Tada describes obtaining a logical structure identification number corresponding to the logical structure discriminator. In fact, Tada describes that "in place of the start tag, a specific control code "α" representative of the start of the logical structure is written and the obtained logical structure is written and the obtained logical structure identification number and logical structure length are written after the control code "α" It is respectfully submitted that the Current Final Office Action does not address the claimed element of

"at least one tag having encoded therein a predefined integer alias for the tag."

8. Independent claim 19 is patentable because Tada fails to disclose or suggest the claimed feature "a code separating the tag from the content portion, whereby the content and markup within the document may be readily parsed at run-time" recited in independent claim 19.

In addition, claim 19 is allowable for at least an additional reason. Claim 19 recited the claimed feature of "a code separating the tag from the content portion, whereby the content and markup within the document may be readily parsed at run-time." Tada fails to teach at least this claimed feature as discussed above with respect to claims 1 and 16. Therefore, for at least these reasons, Applicants submit that claim 19 is in condition for allowance.

9. Dependent claims 2, 5, 7, 9, and 17-18, and 20 are patentable distinguishable over Tada.

Claim 2 depends from independent claim 1 and is allowable for at least the same reasons as independent claim 1 and for the additional claimed features recited therein.

Claim 5 depends from independent claim 1 and is allowable for at least the same reasons as independent claim 1 and for the additional claimed features recited therein.

Claim 7 depends from independent claim 1 and is allowable for at least the same reasons as independent claim 1 and for the additional claimed features recited therein.

Claim 9 is based on claim 1 and is allowable for at least the same reasons as independent claim 1.

Claim 17 depends from independent claim 16 and is allowable for at least the same reasons as independent claim 1 and for the additional claimed features recited therein.

Claim 18 is based on claim 16 and is allowable for at least the same reasons as independent claim 1.

Claim 20 depends from independent claim 19 and is allowable for at least the same reasons as independent claim 1 and for the additional claimed features recited therein.

**B. Claims 3, 4, 8, 22, and 23 are patentably distinguishable over Tada in view of Open eBook.**

Claims 3, 4, and 8 ultimately depend from independent claim 1 and are patentable over the combination of Tada and Open eBook for at least the above reasons discussed with respect to independent claim 1.

Claims 22 and 23 ultimately depend from independent claim 19 and are patentable over the combination of Tada and Open eBook for at least the above reasons discussed with respect to

independent claim 1.

**C. Claim 6 is patentably distinguishable over Tada in view of Carus.**

Claim 6 depends from independent claim 1 and is patentable over the combination of Tada and Open eBook for at least the same reasons as independent claim 1.

**D. Claims 10 and 11 are patentably distinguishable over Tada in view of Carus.**

Claim 10 recites:

A method for pre-computing an electronic document having markup language content comprising the steps of:

- (a) identifying a tag between a left and a right term within a document;
- (b) determining whether the tag is within a single word; and
- (c) if the left and right terms are not part of a single word, inserting a word break flag between the left and right term,

whereby a word break may be readily identified during a run-time search operation.

Applicants submit that claim 10 is allowable over the cited art for at least the following reasons. The combination of Tada and Carus fails to teach at least the claimed element of "determining whether the tag is within a single word" as recited in step (b) of claim 10. The Current Final Office Action admits and Applicants agree that "Tada does not teach comparing a left and right term to determine if they are part of a single word." Current Final Office Action, page 8. The Current Final Office Action relies on Carus, contending that "Carus does teach comparing a left and right term to determine if they are part of a single word . . . in col. 2 line 62 - col. 3 line 31 and col. 5 lines 51-67." Current Final Office Action, page 9. Furthermore, the Current Final Office Action on page 9 states:

Carus does teach comparing a left and right term to determine if they are part of a single word and if the left and right terms are not part of a single word, inserting a word break flag between the left and right terms in col. 5 lines 51-67. Therefore, it provides the teaching of determining whether a tag is within a single word.

The Applicants respectfully disagree because Carus describes a structure in which "[t]he associated character-transition tag identifies the existence of a concatenation between successive characters, a break between successive characters, or an unknown transition between successive characters." Carus, col. 3 lines 28-32. The determination of a break between successive characters does not disclose, teach, or suggest the claimed feature of "identifying a tag between a left and a right term within a document." Claim 10 provides a "method for pre-computing an electronic

document having markup language content comprising the steps of . . . determining whether the tag is within a single word," whereas Carus describes a structure where tags themselves identify a concatenation, break, or transition. Therefore, for at least these reasons, Applicants submit that claim 10 is in condition for allowance. Dependent claim 11 which ultimately depends from claim 10 is allowable for at least the same reason as independent claim 10.

**E. Claims 12 and 13 are patentably distinguishable over Tada.**

Claims 12 and 13 are patentable because Tada fails to disclose the claimed features of a) "determining whether the portion is to be displayed for viewing by a reading device" and b) "if the portion is not to be displayed for viewing, inserting a no search flag in association with the portion" as recited in independent claim 12.

Independent claim 12 recites the claimed elements:

(b) determining whether the portion is to be displayed for viewing by a reading device; and

(c) if the portion is not to be displayed for viewing, inserting a no search flag in association with the portion,

whereby a no search field may be readily identified and skipped during a run-time linear search.

Applicants submit that claim 12 is allowable over the cited art for at least the following reasons. Tada fails to teach at least the claimed element of "if the portion is not to be displayed for viewing, inserting a no search flag in association with the portion, whereby a no search field may be readily identified and skipped during a run-time linear search" as recited in step (c) of claim 12. The Final Office Action contends that "Tada teaches identifying a tag within a document associated with a portion of content in col. 1 lines 7-13, col. 21 lines 50-64 and in col. 22 lines 6-20. In Tada in col. 22 line 24 - col. 23 line 24 inserting a control code, which is a flag, to form an encoded structure indicating whether the information contained within the tags should be searched or not." Final Office Action, page 9. However, Tada actually compares two identification numbers to determine if the "matching process skip step is executed," and when the numbers do not match, "the text . . . is not read and is discarded." Tada, col. 22 line 53 - col. 23 line 3. Therefore, Tada teaches that it is the comparison between identification numbers that indicates whether the text is read, not the flag.

In addition, claim 12 is allowable over Tada for at least one additional reason. The Current Final Office Action admits and Applicants agree that "Tada does not teach that the no search flag is

conditionally inserted based on determining whether the portion is to be displayed for viewing by a reading device." Current Final Office Action, page 10. Rather, the Current Final Office Action contends that:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Tada to have created the claimed invention. It would have been obvious and desirable to have used the search exclusion technique of Tada to have excluded portions which are not to be displayed by a viewing device from searching. This would have corresponded to the goal of Tada of improving run-time search operations as described in col. 6 lines 30 - col. 7 line 20.

Applicants respectfully disagree. The Current Final Office Action discloses no teaching or suggestion for the modification of Tada to insert a no search flag. Rather, Tada teaches and suggests the aforementioned comparison method. Thus, Applicants submit that claim 12 is in condition for allowance for at least these reasons. Dependent claim 13 which ultimately depends from claim 12 is allowable for at least the same reason as independent claim 12.

**F. Claims 14 and 15 are patentably distinguishable over Open eBook.**

Claim 14 recites in relevant part:

A method for pre-computing an electronic document having markup language content comprising the steps of:

- (a) identifying a Uniform Resource Locator (URL) within a document;
- (b) searching a manifest file for a file referenced by the URL; and
- (c) if the file is identified in the manifest file with a reference string, replacing part of the URL with the reference string and a flag for the file,

whereby the file referenced by the URL may be readily accessed when selected during run-time.

Applicants submit that claim 14 is allowable over the cited art for at least the following reason. Open eBook does not disclose, teach, or suggest the claimed feature of "replacing *part* of the URL with the reference string and a flag for the file." (Emphasis added). Thus, Applicants submit that claim 14 is in condition for allowance for at least this additional reason. Dependent claim 15 which ultimately depends from claim 14 is allowable for at least the same reason as independent claim 14.

**G. Claims 24-32 are patentably distinguishable over Open eBook in view of Tada.**

Claim 24 recites the claimed features of "wherein the content file is pre-computed and

encoded to minimize computational run-time requirements." The Current Final Office Action states and Applicants agree that Open eBook does not teach wherein the content file is pre-computed and encoded to minimize run-time requirements. Current Final Office Action, Page 11. The Current Final Office Action states that Tada teaches the advantage of decreased search time as a result of pre-computing and encoding the content file. In addition, the Current Final Office Action states:

It would have been obvious and desirable to have used the content file pre-computing and encoding as taught by Tada to have enabled fast run-time search operations on a Open eBook, when is often implemented on a low power portable reading device.

Current Final Office Action, Pages 11-12.

Applicants respectfully disagree. Neither reference discloses or suggests this motivation to combine. It is respectfully submitted that just because the teaching of different documents may be combined and implemented together, it may not then be inferred that such motivation existed at the time of the invention by those of ordinary skill in the art. Therefore, Applicants submit that independent claim 24 is allowable. Claims 25-31 depend from claim 24 and are also allowable as being dependent on an allowable base claim and further in view of additional claimed features recited therein.

Claim 32 is also stands rejected under Open eBook in view of Tada. Claim 32 recites the claimed features of "forming a converted document....." The Current Final Office Action states and Applicants agree that "Open eBook does not teach converting a document in a first format by processing the document to pre-compute and encode the markup language within the document. . ." Final Office Action, Page 13. The current Final Office Action states that Tada teaches converting a document in a first format by processing the document to pre-compute and encode the markup language within the document. Final Current Office Action, Page 13. In addition, the Final Office Action states:

It would have been obvious and desirable to have used the document and pre-computing and encoding as taught by Tada to have enabled fast run-time search operations on a Open eBook, when is often implemented on a low power portable reading device.

Final Office Action, Page 13.

Applicants respectfully disagree. Neither reference discloses or suggests this motivation to combine. It respectfully submitted that it is impermissible to use the present application as a



blueprint to combine references when the only suggestion can be found in the present application. It is respectfully submitted that just because the teaching of different documents may be combined and implemented together, it may not then be inferred that such motivation existed at the time of the invention by those of ordinary skill in the art. Applicants respectfully submit that the offered suggestion stretches the teaching of Tada, and cannot be found in Tada or in the knowledge of one of ordinary skill in the art at the time of the invention. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit. The Court quoting *In re Kahn*, 441 F3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. \_\_\_, 82 USPQ2d at 1385, 127 S. Ct. 1727 (2007).

Applicants respectfully submit that the Examiner is using the present application as a blueprint when the only suggestion can be found in the present application. Tada concerns a search method for searching structured documents in a massive structured document database. Therefore, for at least the reasons describe above, Applicants respectfully submit that claim 1 is in condition for allowance.

Therefore, for at least this reason, the combination of Open eBook and Tada fails to support an obviousness type rejection for independent claim 32. Claims 33-35 depend from independent claim 32 and are allowable for at least the reason discussed above with regards to independent claim 32.

### **VIII. Conclusion**

The rejections contained in the Final Office Action of June 18, 2007, should be reversed for at least the reasons recited above. Reversal of the rejections is requested.

Date: February 19, 2008

Respectfully submitted,

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**APPENDIX**  
**CLAIMS INVOLVED IN THE APPEAL**

1. A method for encoding an electronic document having markup language content, wherein the document includes at least one tag and an associated content, the method comprising the steps of:
  - (a) separating the tag from the content with a separation variable;
  - (b) replacing the tag with an alias, wherein the alias is a pre-defined representation for the tag; and
  - (c) inserting at least one flag within the tag to form an encode tag structure, wherein a first encoded document is formed.
2. The method for encoding of claim 1, wherein the step of replacing includes the step of replacing at least one attribute type within the tag with an attribute alias, wherein the attribute alias is a predefined representation for the attribute type.
3. The method for encoding of claim 1, further comprising the steps of:
  - (d) UTF-8 encoding the first encoded document to form a second encoded document.
4. The method for encoding of claim 3, further comprising the step of:
  - (e) compressing the second encoded document to form a compressed document.
5. The method for encoding of claim 1, wherein the step of inserting includes the step of inserting a position flag to indicate whether the tag is a start tag or an end tag.
6. The method for encoding of claim 1, wherein the step of inserting includes the step of inserting a word break flag between a left and right term of the associated content, whereby a word break may be readily identified during a run-time search operation.
7. The method for encoding of claim 1, wherein the step of inserting includes the step of inserting a no search flag in association with a portion of the content information, whereby a no search field may be readily identified and skipped during a run-time linear search.

8. The method for encoding of claim 1, further comprising the step of:
  - (d) replacing a URL within the content information with a reference string, whereby the file referenced by the URL may be readily accessed when selected during run-time.
9. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 1.
10. A method for pre-computing an electronic document having markup language content comprising the steps of:
  - (a) identifying a tag between a left and a right term within a document;
  - (b) determining whether the tag is within a single word; and
  - (c) if the left and right terms are not part of a single word, inserting a word break flag between the left and right term, whereby a word break may be readily identified during a run-time search operation.
11. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 10.
12. A method for pre-computing an electronic document having markup language content comprising the steps of:
  - (a) identifying a tag within a document associated with a portion of content;
  - (b) determining whether the portion is to be displayed for viewing by a reading device; and
  - (c) if the portion is not to be displayed for viewing, inserting a no search flag in association with the portion,whereby a no search field may be readily identified and skipped during a run-time linear search.
13. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 12.

14. A method for pre-computing an electronic document having markup language content comprising the steps of:

- (a) identifying a Uniform Resource Locator (URL) within a document;
- (b) searching a manifest file for a file referenced by the URL; and
- (c) if the file is identified in the manifest file with a reference string, replacing part of the URL with the reference string and a flag for the file,

whereby the file referenced by the URL may be readily accessed when selected during run-time.

15. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 14.

16. A method for encoding an electronic documents comprising the steps of:

- (a) inserting at least one code character into the electronic document to separate markup language from content;
- (b) locating a tag within the electronic document associated with a portion of content;
- (c) identifying a pre-defined integer alias for the tag; and
- (d) replacing the tag with the alias,

whereby the tag may be readily identified during run-time parsing of the document.

17. The method of encoding of claim 16, further comprising the steps:

- (e) locating an attribute type within the tag;
- (f) identifying a pre-defined attribute alias for the attribute type; and
- (g) replacing the attribute type with the attribute alias.

18. A computer readable medium having computer-executable instructions for performing the steps recited in claim 16.

19. A computer-readable medium having stored thereon a markup language document

comprising in combination:

- (a) at least one tag having encoded therein a predefined integer alias for the tag;
- (b) an content portion associated with the tag;
- (c) a code separating the tag from the content portion, whereby the content and markup within the document may be readily parsed at run-time.

20. The computer-readable medium of claim 19, wherein the tag further includes at least one flag wherein the flag is selected from the group consisting of WORDBREAK, NOSEARCH, STARTTAG, and ENDTAG.

21. The computer-readable medium of claim 19, wherein the tag further includes at least one pre-defined attribute type alias.

22. The computer-readable medium of claim 19, wherein the markup language document is UTF-8 encoded.

23. The computer-readable medium of claim 22, wherein the markup language document is compressed.

24. A computer-readable medium having stored thereon an electronic book having a file format hierarchy comprising in combination:

- (a) a root directory;
- (b) a content subdirectory linked to the root directory, the content subdirectory having nested therein at least one linked content file providing content information relating to the electronic book, wherein the content file is pre-computed and encoded to minimize computational run-time requirements.

25. The electronic book of claim 24, further comprising:

- (c) at least one link destination index file linked to the content file.

26. The electronic book of claim 24, further comprising:

- (c) page break index providing an index of page break corresponding to the electronic book.
27. The electronic book of claim 24, further comprising:
- (c) metadata file linked to the root directory and having information about the electronic book.
28. The electronic book of claim 24, further comprising:
- (c) manifest file linked to the root directory providing a listing of the files in the content subdirectory relating to the electronic book.
29. The electronic book of claim 24, wherein the content database further includes at least one Cascading Style Sheets (CSS) file.
30. (Original) The electronic book of claim 24, further comprising:
- (c) metadata file linked to the root directory and having information about the electronic book; and
31. The electronic book of claim 24, further comprising:
- (c) a digital rights management database linked to the root database.
32. A method of converting an electronic document comprising markup language therein, the method comprising the steps of:
- (a) receiving the document having a first format;
  - (b) processing the document to encode and pre-compute the markup language within the document; and
  - (c) forming a converted document, wherein the converted document has a file format hierarchy comprising in combination:
    - (i) a root directory; and
    - (ii) a content subdirectory linked to the root directory, the content subdirectory having nested therein at least one linked content file providing

content information relating to the converted document.

33. The method of converting of claim 32, wherein the first format is an Open E-Book format.

34. The method of claim 32, wherein the document is an electronic book.

35. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 32.



**EVIDENCE APPENDIX**

--NONE--

**RELATED PROCEEDINGS APPENDIX**

--NONE--